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AMSAT NEWS SERVICE
ANS-162

ANS is a free, weekly, news and information service of AMSAT North America, The Radio Amateur Satellite Corporation. ANS reports on the activities of a worldwide group of Amateur Radio operators who share an active interest in designing, building, launching and communicating through analog and digital Amateur Radio satellites.

Please send any amateur satellite news or reports to:
ans-editor at amsat.org

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* Nominating petitions for the election of upcoming open seats on *
* the AMSAT-NA Board of Directors must be received at the AMSAT *
* Office by June 15, 2012. The details of the nominating process *
* are posted on the AMSAT front page news at http://www.amsat.org *
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SB SAT @ AMSAT $ANS-162.01
ANS-155 AMSAT News Service Weekly Bulletins

AMSAT News Service Bulletin 162.01
>From AMSAT HQ SILVER SPRING, MD.
June 10, 2012
To All RADIO AMATEURS
BID: $ANS-162.01

Status of ISS Ham Radio Operations

ISS Amateur Radio Project Engineer Kenneth Ransom, N5VHO reports the ARISS digipeater has changed frequency from 145.825 MHz (up/down) to 437.550 MHz (up/down). The same digi alias ARISS is still used.

This change was started with the docking of the ESA Automated Transfer Vehicle (ATV). The ATV is an expendable, unmanned resupply spacecraft delivering propellant, water, air, payloads and experimental supplies to the International Space Station (ISS).

Packet operations were moved to the Columbus Module UHF radio when the Kenwood D700 radio was recently powered off due to needing an additional air purifier to support the ATV. Normally the air puri-

fier is located in the ATV but recent power support issues related to the ATV and ISS necessitated the system be relocated to the Service Module. The purifier is now using the power outlet that the Kenwood radio normally uses. The Russian team has agreed to briefly power the purifier off for the scheduled ARISS school events but then will re-activate the purifier right afterwards. This appears to be a long term impact as ATV is currently scheduled to depart from ISS in September.

[ANS thanks Kenneth Ransom, N5VHO for the above information]

AMSAT-NA Board of Directors Nominations Due This Friday, June 15

It is time to submit nominations for the upcoming open seats on the AMSAT-NA Board of Directors. A valid nomination requires either one current Member Society, or five current individual members in good standing, to nominate an AMSAT-NA member for the position.

Three directors and two alternate directors have terms expiring this year. The director seats open for election are held by Tom Clark, K3IO; Lou McFadin, W5DID; and Gould Smith, WA4SXM. The alternate director seats open for election are held by Mark Hammond, N8MH and Patrick Stoddard, WD9EWK.

The three nominees receiving the highest number of votes will be seated as regular board members with two year terms. The two nominees receiving the next highest number of votes will be seated as alternate directors for one year.

Written nominations, consisting of names, calls and individual signatures, should be mailed to: AMSAT-NA, 850 Sligo Ave #600, Silver Spring, MD, 20910. They must be received no later than June 15th. No other action is required.

Nominations may also be made by electronic means including e-mail, FAX, or electronic image of a petition. Electronic petitions should be sent to MARTHA@AMSAT.ORG or faxed to 301-608-3410, and also must be received by June 15th. If using any electronic submission, there is a second, verifying step:

> ELECTRONIC SUBMISSIONS WITHOUT THIS SECOND, WRITTEN VERIFICATION ARE NOT VALID UNDER THE EXISTING AMSAT-NA BYLAWS. A verifying traditional written petition MUST be received at the AMSAT-NA office at the above address within 7 days following the close of nominations.

[ANS Thanks AMSAT Secretary Alan Biddle, WA4SCA for the above information]

AMSAT 2012 Symposium Announcement and Second Call for Papers

This is the second call for papers for the 2012 AMSAT Annual Meeting and Space Symposium to be held in Orlando, Florida on the weekend of October 26-28, 2012 at the Holiday Inn, Orlando Airport Hotel.

Proposals for papers, symposium presentations and poster presenta-

tions are invited on any topic of interest to the amateur satellite community:

+ Papers for publication in the Proceedings

+ Symposium Presentations

+ Poster Presentations

+ Equipment and Operating Demonstrations

We request a tentative title of your presentation as soon as possible, with final copy to be submitted by October 1 for inclusion in the printed proceedings.

Abstracts and papers should be sent to Dan Schultz, N8FGV, at n8fgv at amsat.org.

The Symposium weekend will feature:

+ Space Symposium with Amateur Satellite Presentations

+ Operating Techniques, News, & Plans from the Amateur Satellite World

+ Board of Directors Meeting open to AMSAT members

+ Meet Board Members and Officers

+ Annual General Membership Meeting

+ Annual Banquet-Keynote Speaker and Door Prizes

If you are interested in a Monday Trip (October 29) to the Kennedy Space Center please contact Martha via email: martha at amsat.org.

The trip will include a round trip bus from the hotel and entrance to the Space Center. The cost will be about $100. This is a wonderful experience for those that haven't been and for those that have been multiple times. We need to get an idea of how many will participate to select the correct bus.

Watch the AMSAT Symposium web pages for the latest updates: http://www.amsat.org/amsat-new/symposium/2012/index.php

[ANS thanks Dan Schultz, N8FGV for the above information]

SA AMSAT Update Reports That SumbandilaSat Recovery Work Continues

SA AMSAT posted a report on their web (http://www.amsatsa.org.za/) there is still a recovery opportunity for SumbandilaSat.

The team at SunSpace are still incrementally reading back the program code from the nine power modules in an effort to determine the extent of the corruption. With SumbandilaSat going through eclipses, the satellite is not as much available as the team would like. SumbandilaSat's batteries failed which means that the satellite is only active when the solar panels are illuminated.

"We need the information to confirm that the changes we made to stop repeated corruption were effective." Johann Lochner ZR6CBC who spends

considerable of his free time on recovery of SumbandilaSat said. "It is our aim to ultimately reprogram one of the power modules to automatically switch the amateur radio transponder on and off."

Because of the shorter illumination of the solar panels in the Southern hemisphere and most likely poor orientation of the satellite with respect to the sun, progress is much slower than originally anticipated. "Where we had three passes to work with in January we currently have one", Johann said.

In early June 2011 for an unknown reason (but probably related to a major radiation event on 7 June) the primary controller on the power distribution unit (PDU) powering the On-Board Computer (OBC) stopped responding to commands from the ground station.

It later appeared that the battery had failed and nothing was heard from the satellite for some time. The ground stations at SANSA Space operations at Hartbeeshoek and the Electronic Systems Laboratory at Stellenbosch University are receiving telemetry when the satellite's solar panels are illuminated by the sun.

Johann said with SumbandilaSat responding when it is in full sunlight the team is confident that some operations will be restored even to the point where it may be possible to do some imaging and have the amateur radio transponder back in operation.

[ANS thanks SA AMSAT for the above information]

Amateur Radio Reports Requested for AubieSat-1

John Klingelhoeffer, WB4LNM, AubieSat-1 Technical Mentor at Auburn University is requesting telemetry reception reports from amateur satellite operators after a new operating mode is commanded aboard the satellite.

AubieSat-1 was launched from Vandenberg AFB, California in October, 2011. The cubesat is an undergraduate built satellite developed by Auburn University. Over the weekend of June 9-11 the AubieSat-1 controllers changed the transmission mode of the satellite to increase the quantity of telemetry. The increased telemetry rate will provide data to indicate how well solar cell protection is working. It should also provide additional onboard housekeeping information.

AubieSat-1 transmits with a power of about 800 milliwatts on a frequency of 437.475 MHz. The beacon signal, along with telemetry, is sent using A1A continuous wave Morse code at 20 words per minute. Additional telemetry from the onboard science experiment will use CW transmissions up to 60 WPM.

Please post your reception reports on the AMSAT-BB.

An example of receiving the AubieSat-1 downlink can be found on the DK3WN SatBlog: http://www.dk3wn.info/p/?p=23582

[ANS thanks John Klingelhoeffer, WB4LNM for the above information]

ARRL 9 cm Band Plan Updated

Outside of ITU Region 1, the Amateur Satellite Service has a 9cm band allocation of 3.400 GHz - 3.410 GHz on a non-interfering basis. No current satellites are active on this frequency range at present. The new band plan reserves allocations for EME and amateur satellite operation.

The detailed graphic of the 9 cm band plan and accompanying article is posted on the ARRL web at:
http://www.arrl.org/news/arrl-board-of-directors-approves-9-cm-band-plan

In ARRL Bulletin 14 ARLB014, released on June 5 the report reads:

The ARRL Board of Directors has unanimously voted to approve the 9 cm band plan, as presented by the ARRL UHF/Microwave Band Plan Committee. Earlier this year, the committee asked radio amateurs for comments on a proposed 9 cm band plan, explaining that the purpose of these band plans is to share information about how the amateur bands are being used and to suggest compatible frequency ranges for various types of application. The committee also recognized that local conditions or needs may necessitate deviations from a band plan, and that regional frequency coordinating bodies may recommend alternatives for use in their respective regions.

The new 9 cm band plan includes the following notations:

* This band plan includes all other emission modes authorized in the 9 cm amateur band whose necessary bandwidth does not exceed the suggested bandwidths listed.

* Weak Signal Terrestrial legacy users are encouraged to move to 3400.3-3401.0 MHz, as time and resources permit.

* Broadband segments may be used for any combination of high-speed data (e.g. 802.11 protocols), Amateur Television and other high-bandwidth activities. Division into channels and/or separation of uses within these segments may be done regionally, based on need and usage.

* Per ITU RR 5.149 from WRC-07, these band segments are also used for Radio Astronomy. Amateur use of these frequencies should be first coordinated with the National Science Foundation.

[ANS thanks the ARRL for the above information]

LVB Tracker Boxes in Stock at the AMSAT Office

Martha says she now has LVB Tracker boxes in stock at the AMSAT Office. The cost is $200 plus $20 shipping.

The AMSAT Store Website is currently down due to technical issues so you can place your order via these routes:

+ Call Martha at the AMSAT Office (301-589-6062) 10:00 AM-6:00 PM EDT
+ Fax - 301-608-3410
+ Mail - AMSAT, 850 Sligo Ave #600, Silver Spring MD 20910

The LVB Tracker is a rotator interface designed to to be used as an interface between tracking software and the Yaesu 4500/5500 series

of Az/El rotators.

Here's why you want one:

+ Several physical interface options including RS-232, USB and
  TCP/IP over 10/100 Ethernet (tested by not implemented)

+ Uses standard EasyComm and Yaesu GS-232 protocols

+ Cross-platform compatibility - Windows, Linux, BSD, Mac

+ Compatible with existing real-time prediction programs such as
  SatPC32 and Nova

+ Open source

+ Integrated firmware programmer for easy installation and upgrade

Watch a demo of the LVB Track Interface with Yaesu G-5500 rotator at:
http://www.youtube.com/watch?v=7ePw-ReMRwA (does not use the AMSAT
enclosure)

[ANS thanks Martha at the AMSAT Ofice for the above information]

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13 Original Colonies Special Event Includes Satellite Operations

The 2012 13 Colonies Special Event stations will operate from July 1
through July 5. Operators will be on the satellites again this year
for the special event.

Recognizing that the 4th comes in the middle of the week (Wednesday)
and that some operators will be going to their work on the 2nd, 3rd
and 5th, we will add a BONUS DAY on Saturday, 30 June 2012. Stations
will operate from 09:00 AM Eastern (1300Z) right through until the
5th. Keep in mind that there may be fewer operators available on the
work days so, PLEASE BE PATIENT!

Please send your QSL requests directly to each operator.

STATE	SE CALL	STATION & OPERATOR	
NY	K2A	WB2OQQ	Pete
VA	K2B	NL7VX	Steve
RI	K2C	N1MIW	Larry
CT	K2D	WA8SME	Mark
DE	K2E	KB2M	Jeff (SSB Birds)
DE	K2E	W3FIS	Paul (FM Birds)
MD	K2F	WA3SWJ	Bruce
GA	K2G	N3TL	Tim
MA	K2H	KB1PVH	Dave
NJ	K2I	KB2M	Jeff (Here when not in DE)
NC	K2J	W4MPS	Marc
NH	K2K	NE1H	Bob
SC	K2L	K4YYL	Art
PA	K2M	KB3WSW	Elizabeth

Link to the satellite page with the list of operators and additional
information: http://www.13colonies.info/Satellites.htm

The main page with all the time and date information is:

http://www.13colonies.info/

[ANS thanks Dave, KB1PVH for the above information]

Field Day - Two Weeks and Counting

AMSAT Director Contests and Awards, Bruce Paige, KK5DO reminds you that Field Day is now only TWO WEEKS away!

Each year the American Radio Relay League (ARRL) sponsors Field Day as an emergency preparedness exercise. The event takes place during a 24-hour period on the fourth weekend of June. For 2012 the event takes place during a 27-hour period between 1800 UTC on Saturday, June 23, 2012 and 2100 UTC on Sunday June 24, 2012. Those who set up prior to 1800 UTC on June 23 can operate only 24 hours.

The Radio Amateur Satellite Corporation (AMSAT) promotes its own version of Field Day for operation via the amateur satellites, held concurrently with the ARRL event.

The AMSAT Field Day 2012 event is open to all Amateur Radio operators. Amateurs are to use the exchange as specified in ARRL rules for Field Day. The AMSAT competition is to encourage the use of all amateur satellites, both analog and digital.

For the complete listing of the AMSAT Field Day Rules, along with discussion of selecting the satellites to operate, please refer to the documents posted on-line at:
http://www.amsatnet.com/fd2012.doc
http://www.amsatnet.com/fd2012.pdf
Links are also accessible from http://www.amsat.org front page.

[ANS thanks AMSAT Director Contests and Awards, Bruce Paige, KK5DO for the above information]

Satellite Shorts From All Over

+ Congratulations to Jerry Brown, K5OE upon reaching his VUCC award upgrade to 1,008 grids. Jerry said his contacts ranged from 2003 on AO-40 to new grids can be attributed to "modern" rovers, including ND9M, WD9EWK, and W5PFG to new grids are credited to Yuri, UT1FG/MM.

+ Congratulations to Bob Johnson, W7LRD for earning Satellite Worked All States #326. Congratulations to Ron Oldham, N8RO for earning Satellite Worked All States #328.

+ Congratulations to Al Ward, W5LUA and Charles Hoover, K0VXM for completing a Florida (EL98) to Texas (EM13) contact on 10 GHz on June 5. This spanned a distance of 1,606.63 km, or998.357 miles (report via Dave, KB0PE)

+ Watch a NASA promotional video about the Educational Launch of Nanosatellites (ELaNa) program. A copy is posted on the AMSAT-UK web at: http://www.uk.amsat.org/8001. AMSAT's Fox-1 cubesat is a participant of this program.

+ Ib, OZ1MY noted AO-7 is once again entering eclipse periods. AO-7 will awaken in either Mode-A or Mode-B randomly upon entering the sunlit portion of its orbit. It is only operational while in sunlight. Watch, and update the status of AO-7 on the OSCAR Status page at: http://oscar.dcarr.org/

+ Follow the links at http://www.uk.amsat.org/7990 to download your free copy of SatMagazine. The June issue features the STRaND-2 nanosats on pages 25 and 26; Additionally on page 71 there is a picture of the satellite OSCAR-5 that was built by radio amateurs at the University of Melbourne, Australia.

+ AMSAT received the sad news of the passing of Chris Heijzelaar, PA5RWE. He was a very active satellite operator. Condolences can be left at: http://www.het-bar.net (via Andre, PE1RDW)

+ The ARRL posted the video of the Dayton 2012 presentation by AMSAT Vice-President Educational Relations Mark Hammond, N8MH describing the different roles and opportunities for Technical Mentors and Ground Station operators to play in an ARISS contact with the International Space Station. Watch on-line at: http://www.youtube.com/watch?feature=player_embedded&v=7z-4moV8_Xs

+ While the AMSAT on-line store is closed due to technical issues you can place an order through the AMSAT office. The hours are 10:00 AM - 6:00 PM EDT. The phone number is 301-589-6062. Martha is looking forward to hearing from you!

[ANS thanks everyone for the above information]

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In addition to regular membership, AMSAT offers membership in the President's Club. Members of the President's Club, as sustaining donors to AMSAT Project Funds, will be eligible to receive additional benefits. Application forms are available from the AMSAT Office.

Primary and secondary school students are eligible for membership at one-half the standard yearly rate. Post-secondary school students enrolled in at least half time status shall be eligible for the student rate for a maximum of 6 post-secondary years in this status. Contact Martha at the AMSAT Office for additional student membership information. And with that please keep in mind when a mechanical engineer, a chemical engineer and a computer engineer were carpooling to work when the car broke down. The mechanical engineer speculated it might be a problem with the engine. The chemical engineer thought they should check the fluids. The computer engineer suggested they all get out of the car and get back in again, then see if it restarts.

73,
This week's ANS Editor,
JoAnne Maenpaa, K9JKM